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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/208,962	12/10/1998	RICHARD A. ELCO	4414-D	8858

7590 10/08/2004  
BRIAN J HAMILLA INTELLECTUAL PROPERTY  
LAW DEPARTMENT  
FCI/BERG ELECTRONICS GROUP INC  
825 OLD TRAIL RD  
ETTERS, PA 17319

EXAMINER
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ABRAMS, NEIL

ART UNIT	PAPER NUMBER
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2839

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/208,962	<b>Applicant(s)</b> ELCO ET AL.	
	<b>Examiner</b> Neil Abrams	<b>Art Unit</b> 2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 6-22-2004.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 46-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 61-64 is/are allowed.
- 6) ☒ Claim(s) 46-64 is/are rejected.
- 7) ☐ Claim(s) ~~46-64~~ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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The drawing amendments are approved.

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Marked-up Drawings" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Claims 46-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matuzaki alone or in view of Swamy, Romine, Carey and Kandybowski.

For claims 46, Matuzaki, fig. 2 device 1, 12 includes ground planes formed by shield 12, and located on each side of first and second parallel conductors arms 10a, 10a and dielectric walls 4 (fig. 1) located between conductor 10, 10 and one of the ground planes. While part 12 is not discussed it seems obvious it would be a shield similar to that at 25. It seems clear that a ground plane could exist between adjacent conductor arms 10a, 10a and one of the ground planes. While part 12 is not discussed it seems obvious it would be a shield similar to that at 25. It seems clear that a ground plane could exist between adjacent conductor arms 10a, 10a. The claims cover the device used at any voltage and at very low voltage <sup>at which</sup> such ground plane could readily exist. The space between contact arms 10a, 10a would be filled with air and with the ridges that separate the contact arms. These ridges do not effect basic concept and could be present or omitted. If omitted only air would separate arms 10a, 10a.

For claims 47-50, the conductors 10a, 10a are parallel and also obvious to form Matuzaki connector 1 for pcb mounting in view of Kandybowski and Ramine, but with use of solder as in Romine at 52, or with solder ball use in view of Swamy.

PCB mounting is a standard option and solder use enables good connection. As an alternative obvious to join 7 to a flexible substrate (flex pcb) by use of solder at 7A. Such solder use is standard in the art.

While Matazuka shield would typically be grounded, should the matter be at issue, also obvious to so form it in view of Carey, see abstract.

Claims 51-60 are also covered by references as applied above.

Claims 46-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathe in view of Carey, Matuzaki, Swamy and Romine.

Mathe, fig. 2B includes a metal part 14 defining first, second, third and fourth planes and conductors 17, 17 located between such planes and dielectric at leadline 15 between the metal planes and the conductors 17, 17, the space between conductors 17, 17 (outside <sup>part</sup> ~~part~~ 15) occupied by air. Also see figs. 1A, 1B. Mathe does not refer to the metal part 14 as a shield or ~~as~~ as grounded. Obvious that metal 14 would be a shield as in Matusaki at 25 and Carey at 16, 18 and grounded as is typical and taught by Carey, see abstract.

At low voltages a ground plane would exist between adjacent conductors 17. Reference to predetermined spacing, thickness defines no structural details over Mathe, so applied. Note, Mathe could also be applied with connectors mated and joined

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contact pairs 17, 30 together read as the recited conductors. Compare to applicants fig.,  
1b at 5 26, 28.

For claims 48-50, etc, also obvious to form the fig. 2B connector to be mounted  
to a printed circuit board and with solder in view of Matuzaki fig. 3, Romine, fig. 6 and to  
use a solder ball in view of Swamy.


Claims 61-64 are allowed.

Applicant's arguments filed with the amendment and pertinent to above rejections  
have been fully considered but they are not persuasive. See above discussion.

Any inquiry concerning this communication should be directed to Neil Abrams at  
telephone number (571)272-2089.

Abrams/ds

10/04/04

  
NEIL ABRAMS  
EXAMINER  
ART UNIT 322